

Statement 4

September 28, 2016

Statement By: Kevin Mottus, California Brain Tumor Association

See Attachments 4, 5, 6, 7, 8, 9, 10, 11, 12a, 12b, 12c, 12d

I am strongly opposed to the FCC plan to rollout and auction 5G spectrum technology due to the non-thermal biological health effects created by radiofrequency/microwave radiation or electromagnetic fields (EMF) emitted by wireless transmitters. These documented effects are not recognized and not protected by our current FCC safety standards.

Hundreds of MD and PhD experts, in the field of wireless microwave radiation health effects, warn us of the serious harm that will be caused by microwave technology and the deployment of multiple transmitters. This year, four experts submitted written testimony and statements regarding the health effects from wireless microwave radiation and the need to stop Los Angeles City's plan to install Citywide WiFi. Please see the specific testimonies of each expert attached.

Dr. Olle Johansson, PhD from the Koralinska Intitute in Sweden, a world leader in the field of EMF health effects, speaks to the ever growing consensus that there are wireless microwave radiation health effects and that they can be due to non-thermal or sub-thermal fields which are not acknowledged or protected for by current FCC exposure guidelines and that our population needs to be protected from wireless radiofrequency signals. (See Attachment 4 for Dr. Olle Johansson's Statement)

Dr. Martin Blank, PhD, a professor, researcher and leading cellular biologist from Columbia University speaks to the problem of the radiofrequency radiation waves transmitted every second by wireless transmitters being picked up by our DNA like a fractal antenna causing chemical and cellular structural effects, including single and double strand DNA breaks. Clearly Dr. Blank believes wireless electromagnetic waves are harmful, contrary to the claims by the wireless industry and the assumption of our government. The argument that wireless radiation is not harmful because it does not heat cells is inaccurate; as he explained, wireless radiation electromagnetic waves affect our cells at levels millions of times below heating and by billions of waves less per second than are used in current technology. (See Attachment 5 for Dr. Martin Blank's Statement)

Dr. Martin Pall, PhD, a Washington State University Professor of Biochemistry and basic Medical Sciences with a background in Biophysics, specifically defines a mechanism by which wireless EMFs damages our cells and can lead to cancer. While cancer is of great concern long term, wireless microwave radiation has been reported to cause neurological symptoms in the short term, sometimes hours, days or weeks after exposure. (See Attachment 5 for Dr. Martin Pall's Statement)

Dr. Martha Herbert, PhD, MD Pediatric Neurologist from Harvard has written specifically to the City of Los Angeles stating that no one should be exposed to WiFi radiation because it is neurotoxic especially to children, the elderly, chronically ill adults, and those with neurological disorders. Specifically she makes the argument that wireless microwave radiation may be one of the triggers for Autism Spectrum Disorders due to the changes in the brain. She made a comprehensive comparison of EMF symptoms being similar to symptoms occurring with Autism Spectrum disorder as she has explained in a two-part paper attached. She recommends opting for wired technology rather than wireless technology. (See attachment 7 for Dr. Martha Herbert's Statement)

Dr. Lennart Hardell, MD, PhD a Swedish Oncologist and Professor at Orebro University Hospital, has completed a series of epidemiological studies showing a direct relationship between exposure to wireless microwave radiation and the increased risk of brain tumors. His studies have shown a cumulative effect and that with more exposure there are increasing health effects. In the study attached Dr. Hardell shows an 11% increase of cancer risk with every additional year of exposure with the highest risk for children exposed before the age of 20 (See Attachments 8 and 9). This is greatly important because 5G will be exposing children continuously for many years, the rest of their lives, exponentially increasing their risk of developing cancer. Furthermore, In the paper attached Dr. Hardell argues that wireless radiofrequency radiation should be classified, by the World Health Organization (WHO), as a Class 1 carcinogen given the current science and criteria for a WHO Class 1 carcinogen, joining other carcinogenic agents such as arsenic, asbestos, ultraviolet radiation, formaldehyde etc. (see Attachment 10). Exposure to wireless microwave radiation should be prevented as done with other Class 1 carcinogens.

This past year, 200 scientists from 39 countries who have all authored peer-reviewed research papers organized an appeal to the United Nations and World Health Organization stating clearly the existence of health effects from wireless microwave radiation, especially non-thermal ones (see Attachment 11). This appeal also emphasizes the need to establish safety standards to protect against these health effects.

See Attachments 12a, 12b, 12c and 12d for a sample of 900 studies showing a variety of deleterious health effects due to wireless microwave radiations exposure (EMF) including cancer, DNA damage, effects on pregnancy and reproduction, neurological effects, children health effects, oxidative stress, cell function impairment, whole body effects, effects on medical implants, allergy effects, synergistic effects with other agents, inflammation, electrohypersensitivity, effects on the heart, hormones, brain, central nervous system, hearing, eyes, blood, bone marrow, wellbeing, behavior, glands, sleep, skin, immune function, critical organs also effects on other animals and the environment among other effects. We are being forced to participate in a massive human experiment whereby we are increasingly exposed to RF radiation and suffer the well-documented and expected serious health effects. This injustice must stop now beginning with this 5G program that will further increase RF radiation exposure for citizens across the country without their informed consent.

I am strongly opposed to the FCC plan to rollout and auction 5G spectrum technology due to the non-thermal biological health effects created by radiofrequency/microwave radiation or electromagnetic fields (EMF) emitted by wireless transmitters. These documented effects are not recognized and not protected by our current FCC safety standards. MD and PhD experts, in the field of wireless microwave radiation health effects, warn us of the serious harm that microwave technology especially 5G along with its required deployment of multiple transmitters, will cause. We ask that you abort your plan to auction 5G spectrum and immediately halt the rollout of 5G technology testing. We need to immediately institute safety standards that take into account non-thermal biological health effects. The research attached and cited shows that, at the power levels required for this technology to operate reliably over the project's large areas, the radiofrequency/microwave radiation will have significant biological health effects, especially on electrosensitive individuals and children (Cancer, Neurological effects, immune system disorders, reproductive harm and others). **We are asking that you focus instead on installing only fiber optic wired connection to the Internet along with individualized subsidies to help poor people pay for wired/cabled connection to the Internet. Fiber optic wired connections eliminates wireless microwave radiation transmissions thus eliminating wireless microwave radiation health effects. In addition we insist on instituting RF Exposure standards significantly lower than our current thermal standards as recommended and supported by the Bioinitiative Report (Bioinitiative.org/conclusions) of 0.0003 microWatts per centimeter squared.**

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